BEFORE THE

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Federal Communications Commission

WASHINGTON, D.C.

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of	)	
	)	
Revision of the Commission's Rules	)	CC Docket No. 94-102
to Ensure Compatibility with Enhanced	)	RM-8143
911 Emergency Calling Systems	)	

COMMENTS OF AMSC SUBSIDIARY CORPORATION

AMSC Subsidiary Corporation ("AMSC") hereby comments on the Consensus Agreement on Enhanced 911 ("E-911") service jointly filed by the Cellular Telecommunications Industry Association, the National Emergency Number Association, the Association of Public-Safety Communications Officials, and the National Association of State Nine One One Administrators ("The Consensus Agreement").[1/] The Consensus Agreement represents the parties' negotiated agreement on issues raised by the Commission's October, 1994 proposal to require Commercial Mobile Radio Service ("CMRS") providers to make certain E-911 services available over time to mobile radio callers.[2/] While the parties to the Consensus Agreement call for minor changes in the Commission's plan for provision of Automatic Location Identification ("ALI") capability, they generally support the Commission's proposal. The Commission now seeks additional comment on whether to adopt the Agreement, in whole or in part.[3/]

1/ Public Safety-Wireless Industry Consensus: Wireless Compatibility Issues, CC Docket No. 94-102, filed on February 13, 1996.

2/ Revision of the Commission's Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, Notice of Proposed Rulemaking, CC Docket No. 94-102, 59 Fed. Reg. 54878 (October 19, 1994) (the "NPRM").

3/ Public Notice, Additional Comment Sought in Wireless Enhanced 911 Rulemaking Proceeding Regarding "Consensus Agreement" Between Wireless Industry Representatives and Public Safety Groups, CC Docket No. 94-102, February 16, 1996.

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AMSC recognizes the importance of emergency communications, and will be implementing an emergency telephone service in conjunction with its domestic Mobile Satellite Service ("MSS"). As AMSC has stated previously in this proceeding, however, certain of the proposed E-911 features, particularly those related to caller location, would add too much to the cost of the service to be feasible for most of its customers.[4/] As a result, AMSC respectfully continues to urge the Commission not to impose its E-911 proposal, or the recommendations of the Consensus Agreement, on AMSC's MSS system.

Background

A. Enhanced 911 Service Proposals

In the NPRM, the Commission proposed to require CMRS providers to include in all their service offerings the same kind of enhanced 911 services as available to customers of most landline telephone companies. Specifically, within one year after the effective date of the order adopting rules in this proceeding, CMRS providers would be required to provide priority for 911 calls over non-emergency calls, general service access through TTY devices to individuals with speech or hearing disabilities, and access to 911 service without user validation. In addition, the Commission proposed a three-stage, five-year process for implementation of automatic location identification ("ALI").[5/] At the end of this process, the three-dimensional location of the mobile station would have to be determinable within a radius of 125 meters. The Commission also proposed that within three years wireless systems must provide Public Safety Answering Point ("PSAP") attendants with the capability to call back the

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4/ Comments of AMSC, CC Docket 94-102, January 9, 1995.

5/ The first two phases of the Commission's proposed ALI requirements (location of the base station and distance of the caller from the base station), while relevant to cellular systems, would not apply to the AMSC system, which has a single earth station for its nationwide system.

911 caller if the call is disconnected.[6] The final Commission requirement would compel wireless carriers to implement common channel signaling capabilities within three years.[7] In addition, the Commission sought comment on whether it is necessary to establish equipment standards for base and mobile transmitters, set cut-off dates for the manufacture, importation, and marketing of non-compliant equipment, or require the labeling of non-compliant equipment.

The Consensus Agreement addresses a number of the issues raised in the Commission's proposal. The parties to the Agreement support the Commission's proposals on the provision of access to 911 service without user validation, the implementation of call back capability, and the use of TTY devices. The Consensus Agreement offers a slightly modified plan, however, for the implementation of ALI capability. The Agreement eliminates the second of the Commission's three stages of ALI implementation, and, while it retains a 125 meter locational requirement, the Agreement excludes the "height above ground" dimension from this standard. The Consensus Agreement also states that the parties prefer consumer education methods other than equipment labeling. The Agreement does not address the 911 call priority issue or common channel signaling.

In addition, the parties to the Consensus Agreement ask that the Commission make clear that state and local governments are free to implement a system of taxes or fees reasonably related to the recovery of costs incurred pursuant to carrier compliance with the Commission's E-911 proposal. Finally, the Agreement asserts that state "Good Samaritan" statutes already applicable to wireline carriers and Public Safety Answering Points ("PSAPs") should also be applicable to wireless carriers.

6/ Such capability is typically provided through the transmission of Automatic Number Identification ("ANI"), although the Commission sought comment on whether call back capability might be accomplished through other means.

7/ According to the NPRM, requiring wireless providers to provide the same or similar information and features currently available from wireline calls would obligate these providers to transmit some or all of the following information: ANI; ALI; the subscriber's name; the class of service, e.g., residence or business; priority of the caller, such as hospital or school; and routing information to direct the call to the proper PSAP; and transfer numbers, i.e., separate numbers to allow transfers of calls to police, fire, and ambulance services. NPRM at 26.

B. AMSC's MSS System

The Commission authorized AMSC in 1989 to construct, launch and operate the first dedicated U.S. MSS system, as the culmination of a licensing process that began with the filing of applications in 1985.[8/] The first AMSC satellite was launched last year, and AMSC's SKYCELL Satellite Telephone Service began last month. The new system for the first time provides mobile voice and data communications services to people who live, work or travel in rural and remote areas of the U.S. unserved by terrestrial technologies. These areas include a signficiant portion of the land mass of the continental United States.

The architecture of AMSC's system is basically the same for all voice customers. Calls originating from a mobile terminal will be transmitted to the satellite in the L-band (1.5/1.6 GHz). The satellite will translate those frequencies into the Ku-band and transmit the call to the AMSC feederlink earth station in Reston, Virginia. AMSC will then hand the call to its long-distance carrier, for termination anywhere in the world. Calls to mobile terminals will be routed to AMSC's earth station, uplinked to the satellite in the Ku-band, and transmitted to mobile terminals in the L-band.[9/]

Customer terminals can roam in any of the four regional beams that cover the North American continent. These beams are vast, with the eastern beam, for example, covering from Quebec to Florida. As a result, while AMSC knows, at best, which beam a customer is within, AMSC cannot locate the customer within that beam.

8/ Memorandum Opinion, Order and Authorization, 4 FCC Rcd 6041 (1989); Final Decision on Remand, 7 FCC Rcd 266 (1992); aff'd sub nom. Aeronautical Radio, Inc. v. FCC, 983, F.2d 275 (D.C. Cir. 1993). AMSC is regulated as a common carrier. Second Report and Order, 2 FCC Rcd 485, 490 (1987).

In 1994, the Commission included MSS among the services to be classified as CMRS. Second Report and Order, 9 FCC Rcd 1411, 1457-58 (1994).

9/ AMSC will also have available an earth station at the Washington International Teleport in Alexandria, Virginia, in order to provide redundancy and diversity on those occasions when rain fading is a problem for Ku-band communications.

AMSC expects its system to serve between approximately 300,000 and 600,000 voice customers. A large segment of AMSC's market is likely to be cellular customers that do not have service in rural and remote areas. These customers will use a dual-mode phone that will operate on cellular frequencies when the user is within range of a terrestrial system and in the L-band when the user is outside of cellular range, thus allowing uninterrupted service.[10/] These dual-mode phones are expected to cost about $2,000. AMSC also intends to offer satellite-only mobile telephones, which lack any cellular component, for approximately the same price.

C. AMSC's Emergency Telephone System

AMSC fully acknowledges the importance of emergency communications. In fact, the AMSC system's very existence is expected to provide a tremendous boon to the provision of emergency services in vast areas that are presently unserved by any mobile communications facilities and, in many cases, by any communications facilities whatsoever.[11/] For the first time, police, fire, and emergency medical services in rural and remote areas will have the ability to communicate even outside the range of their traditional mobile radio facilities. Public safety and government agencies will comprise a significant portion of AMSC's customer base.[12/] AMSC's emergency services system is a major part of this scheme.

10/ When customers who have a dual-mode phone are within range of a cellular system, their access to 911 services will be governed by the capability of the cellular system that receives the call.

11/ For example, in the land mobile environment, AMSC terminals were used in Cali, Columbia after the recent American Airlines crash, and by the Red Cross in January in areas of Pennsylvania affected by serious flooding. In addition, the AMSC system will be used to provide aeronautical and maritime distress and safety services.

12/ The advancement of safety communications was one of the primary factors for allocating spectrum for MSS. Notice of Proposed Rulemaking, 50 Fed. Reg. 8149 (1985), at para. 4.

As part of its SKYCELL Satellite Telephone Service, AMSC will offer Emergency Referral Service ("ERS") to enable callers to request assistance in an emergency.[13] To implement this ERS, AMSC will at all times operate at its Customer Relations Center in Reston dedicated facilities reserved exclusively for emergency calls. To access ERS, callers will dial "377" on their satellite telephones. Calls to "911" will also be transmitted in the same way, but in order to emphasize that the service is not identical to typical service, customers will be instructed to use "377." AMSC's ERS will function only as a referral service. AMSC itself will not be providing any substantive assistance or advice to callers. Upon receiving a call, AMSC's professionally trained operators will first determine, to the extent possible, whether the caller is involved in a life-threatening or otherwise serious emergency. If the caller's situation is not urgent and involves such problems as automotive breakdowns or minor accidents, the AMSC operator will arrange the transfer of the call to "411," AMSC's directory assistance service, to obtain the number of the local road assistance authority or other appropriate entity.

If the operator determines that there is an emergency, the operator will ask the caller only for his or her name, satellite telephone number, and the state in which he or she is located.[14] Calls on AMSC's system do not carry locational information, as the coverage areas of the six satellite beams are so large as to be essentially useless for emergency service. Moreover, many AMSC customers do not want ALI transmitted on their calls.

Having received this information, the AMSC operator will then advise the caller that he or she will be transferred to a public safety or law enforcement contact in his or her state. As of this date,

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13/ AMSC had previously planned to route 911 calls directly to an outside vendor, whwould handle the call similar to a 911 operator. Based on the caller's location and the type of emergency, the operator would send the call to the best available public safety entity. Comments of AMSC at 3-4.

14/ The caller's satellite telephone number is also transmitted to the AMSC operators via Automatic Number Identification ("ANI"). This ANI cannot transmitted automatically to the state emergency agency, however.

officials in forty-five states and the District of Columbia have verbally agreed to participate in AMSC's ERS system. AMSC continues to seek agreements with agencies in California, Connecticut, New Hampshire, New Jersey, and Ohio. In offshore regions, calls will be referred to the U.S. Coast Guard. All of these emergency contacts, like AMSC's operators, will be on duty at all times.[15/]

Once the AMSC operator has ascertained the state or region in which the caller is located, the operator will identify the emergency contact for that state or region, call the contact number, and conference the caller and the emergency contact. The AMSC operator will communicate the caller's name and satellite telephone number to the Agency. When the AMSC operator confirms that the caller is in communication with the Agency, the operator will hang up, concluding AMSC's responsibilities for that call.

Discussion

AMSC's system will significantly augment the nation's emergency communications capability. For the first time, service subscribers will be able to report an emergency to a state public safety agency from anywhere in the country, no matter how remote the site. This contribution to emergency services should be considered when the Commission weighs whether to impose the explicit terms of its E-911 requirements and the prohibitive costs of compliance on AMSC.

AMSC recognizes that its ERS system technically will not comply with most of the terms of either the Commission's E-911 proposal or the Consensus Agreement.[16/] Specifically, AMSC's system

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15/ These public safety and law enforcement organizations, as well as the Coast Guard, have agreed to notify AMSC of any change in the emergency contact names and telephone numbers. In addition, AMSC will reverify these contact names and numbers quarterly.

16/ Some of the Commission's E-911 requirements are inapplicable to AMSC's system. The Commission's user validation requirement is intended to prevent local service providers from blocking roamer access to 911 services. As a nationwide service provider, this proposal is not relevant to AMSC. AMSC will provide ERS to all MSS subscribers. In addition, as stated earlier at note 5, the first two stages of the Commission's ALI timetable -- concerning callers' cell location and proximity to base station -- are irrelevant to AMSC.

will not assign priority to ERS calls on a per-call basis,[17] and it will not provide public safety attendants with call back or re-ring capability in the manner described in the NPRM.[18] Moreover, as stated above, the system will not determine the location of a mobile terminal, a capability which many AMSC customers do not want and which is infeasible because of the great size of AMSC's satellite beam coverage areas.[19] GPS receivers will be available to MSS subscribers at a cost of about $500, which will tell the caller where he or she is, but the AMSC system has not been designed to automatically transmit this position location data to the AMSC earth station. Finally, the AMSC system cannot transmit any of the information identified in the NPRM's discussion of common channel signaling.[20]

In the NPRM, the Commission recognized explicitly that there might be differences among CMRS providers. Accordingly, AMSC previously argued and still maintains that the Commission's E-911 requirements should not be imposed on AMSC's unique MSS system. To provide the full range of enhanced 911 requirements is too costly to be justified, at least at the present time, and would greatly jeopardize the public safety benefits resulting from AMSC's system. The modifications required to comply with the proposed enhanced 911 requirements, especially those pertaining to ALI, would require several hundred million dollars of changes to AMSC's system design and to the design of the

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17/ As required by its license, AMSC will provide priority and preemptive access for aeronautical safety communications; and, if authorized, provide the same service to maritime distress and safety communications. This priority service, however, will be provided to a discrete category of user terminals that qualify and subscribe to the service.

18/ AMSC stated in its previous comments that its system would provide for the transmission of ANI, thus permitting emergency personnel to reconnect a call if the call is accidentally disconnected. AMSC Comments at 6. Technical limitations now preclude AMSC from passing ANI to public safety agencies, although the AMSC operator will be able to verbally pass the customer's phone number to the state contact.

19/ The Consensus Agreement's elimination of the three-dimensional aspect of ALI is irrelevant to AMSC, as AMSC's system will be unable to determine even the longitudinal and latitudinal position of its callers.

20/ See note 7.

mobile terminals. MSS is a new service, and these additional costs could severally hamper its development. AMSC estimates that demand for its service would be drastically curtailed if users were required to spend the additional $500-$1,000 per mobile terminal that would be needed to provide GPS capability and to pay for the changes to AMSC's switch that would automatically transmit the position location information. The basic mobile telephone is already relatively expensive at $2,000, a 25-50 percent increase in cost will be prohibitive for many customers.[21/] In addition, modification of the earth station and switch would be extremely costly. This includes significant modifications to channel unit software, signaling units, the network access processor and the station logic signaling subsystem.

Moreover, AMSC firmly believes that its ERS system will provide callers with excellent emergency service in most cases. As stated above, both the AMSC operators and the emergency contact representatives in each state will be on duty at all times. Transfer of satellite telephone callers from the AMSC operator to these emergency contacts and, subsequently, to the appropriate PSAPs will be swift and efficient. In addition, while AMSC's system will not automatically transmit ANI to the emergency agency contact, AMSC's operators will be able to verbally transmit that information to the emergency contact.

As to the other provisions of the Consensus Agreement, AMSC agrees with the assertion that state "Good Samaritan" statutes should apply to wireless carriers. With respect to state and local cost recovery schemes, AMSC believes that if it is exempted from the Commission E-911 requirements, AMSC subscribers should not be obligated to contribute to any state or local revenue pool.

21/ Customers desiring the extra position location capability can acquire it on an individual basis.

Conclusion

Therefore, for the reasons set forth above, AMSC Subsidiary Corporation respectfully continues to urge the Commission not to impose E-911 requirements on AMSC.

Respectfully submitted,

AMSC SUBSIDIARY CORPORATION

Bruce D. Jacobs
Glenn S. Richards
Stephen J. Berman
Fisher Wayland Cooper
Leader & Zaragoza L.L.P.
2001 Pennsylvania Ave., N.W.
Suite 400
Washington, D.C. 20006
(202) 659-3494

Lon C. Levin
Vice President and
Regulatory Counsel
AMSC Subsidiary Corporation
10802 Park Ridge Boulevard
Reston, Virginia 22091
(703) 758-6000

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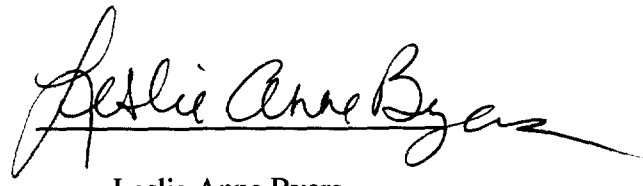
CERTIFICATE OF SERVICE

I, Leslie Anne Byers, do hereby certify that I have this 4th day of March, 1995, mailed by first-class United States mail, postage prepaid, copies of the foregoing "**Comments of AMSC Subsidiary Corporation**" to the parties to CC Docket No. 94-102.



Leslie Anne Byers